

AMENDMENTS

Please amend the application without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents.

In the Claims

1. (Currently amended) A method of ~~controlling unwanted~~ inhibiting cancerous cell proliferation in a subject ~~in need thereof~~ comprising:

inducing in a subject differentiation in a cancerous cell;

providing said cell with a photosensitizer (PS) comprising a porphyrin; and

activating said PS,

~~whereby the cell is of the type of the cell proliferation to be controlled, thereby killing the cell and controlling the unwanted cell thereby inhibiting~~ proliferation.

2. (Currently amended) The method of claim 1, wherein, the subject is a patient having a ~~malignant or benign~~ cancerous disorder characterized by ~~unwanted cell proliferation a tumor, hyperplastic or neoplastic cells or malignantly transformed cells.~~

3. (Currently amended) The method of claim 1, wherein a the PS is administered to the subject.

4. (Currently amended) The method of claim 1, wherein a precursor of a the PS is administered to the subject.

5. (Currently amended) The method of claim 1, wherein the photosensitizer ~~includes~~ is chlorin e6 or a chlorin derivative.

6. (Cancelled)

7. (Currently amended) The method of claim 1, further comprising administration to the subject of a compound which causes ~~the~~ accumulation of a the PS, ~~the~~ formation of a the PS, or is converted to a the PS in the subject's body.

8. (Currently amended) The method of claim 1, further comprising administration to the subject of a compound which causes ~~the~~ accumulation of, ~~the~~ formation of, or which is converted to a protoporphyrin, in the subject's body.

9. (Original) The method of claim 1, wherein the PS is coupled to a targeting moiety.

10. (Currently amended) The method of claim 1, wherein the subject has a cell is a hematopoietic disorder cell and a PS and a retinoic acid, are administered to the subject in an amount sufficient for the treatment thereof.

11. (Currently amended) The method of claim 1, wherein the subject has cell is a malignancy of breast epithelial cells, and a PS and an antidiabetic compound or a ligand for a transcription factor is administered to the subject, wherein the antidiabetic compound or ligand induces differentiation of the cells.

12. (Currently amended) The method of claim 1, wherein the subject has prostate carcinoma and wherein the unwanted cell proliferation is a of prostate cells, and a PS and dihydrotestosterone or liarozole are administered to the subject.

13. (Currently amended) The method of claim 1, wherein a the proliferating cell is induced to differentiate and the PS is supplied such that it is present while the cells are is in a state of induced differentiation.

14. (Currently amended) A method of detecting the presence of a cell proliferation disorder characterized by unwanted cell proliferation in a subject comprising:

providing a differentiation agent to a cell of a subject and a control cell to produce a differentiated cell;

providing the cells with a light emitting agent comprising a porphyrin;

activating said agent; and

detecting an increase in light emission between in the differentiated cell of a subject and a as compared to the control cell,

thereby detecting indicating the presence of cell proliferation a disorder characterized by unwanted cell proliferation.

15. (Currently amended) The method of claim 14, wherein the light emitting agent is a fluorescent compound or a PS protoporphyrin.

16. (Currently amended) The method of claim ~~15~~ 14, wherein the photosensitizer is includes chlorin e6 or a chlorin derivative.

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)
22. (Cancelled)
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)
26. (Currently amended) A method of ~~controlling~~ inhibiting androgen-dependent prostate cancer in a subject ~~in need thereof~~ comprising:
 - inducing differentiation in a prostate epithelial cell;
 - providing the cell with a compound that induces photosensitizer (PS) accumulation,
 - wherein the compound is 5-aminolevulinic acid (ALA); and
 - activating the PS,~~thereby killing the cell and controlling the cancer~~ inhibiting androgen-dependent prostate cancer.
27. (Cancelled)
28. (Previously added) The method of claim 26, wherein the ALA is coupled to a targeting moiety,
29. (New) The method of claim 10, wherein retinoic acid is provided in an amount sufficient to induce differentiation.
30. (New) The method of claim 11, wherein troglitazone or transcription factor PPAR gamma is provided in an amount sufficient to induce differentiation.
31. (New) The method of claim 12, wherein an androgen, a retinoid, vitamin D or liarozole is provided in an amount sufficient to induce differentiation.
32. (New) The method of claim 14, wherein the method is performed in vivo.
33. (New) The method of claim 14, wherein the method is performed ex vivo on a sample comprising the cell taken from the subject.